

Mining Machinery and Equipment Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)	
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)					
333131, Mining machinery and equipment manufacturing	2002..	246	272	9 895	412 035	6 148	11 980	209 925	883 728	1 031 098	1 926 204	147 091
	2001..	N	N	11 064	434 624	7 114	14 967	228 192	955 676	1 175 681	2 132 004	39 074
	2000..	N	N	11 235	441 842	7 243	15 385	231 528	943 143	1 123 596	2 118 687	44 358
	1999..	N	N	12 591	454 710	7 985	16 760	247 001	1 091 294	1 051 056	2 151 209	57 653
	1998..	N	N	14 599	520 958	9 540	20 391	292 207	1 490 439	1 543 009	3 003 057	40 462
	1997..	261	290	13 507	485 338	9 118	18 939	273 557	379 429	1 354 429	2 705 885	62 942

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
333131, Mining machinery and equipment manufacturing												
United States	1	272	109	9 895	412 035	6 148	11 980	209 925	883 728	1 031 098	1 926 204	147 091
California	3	6	2	110	4 672	66	113	1 729	7 216	10 157	17 189	251
Michigan	3	9	3	304	12 200	211	449	6 748	27 607	29 810	56 920	654
Ohio	1	15	7	557	23 246	388	794	14 584	74 917	64 531	139 226	2 994
Pennsylvania	—	23	13	1 838	85 878	1 091	2 166	38 980	120 361	207 371	335 945	7 197
Texas	1	17	2	329	15 058	177	347	6 337	35 617	25 545	63 240	1 539
Utah	—	7	4	387	14 009	199	376	7 185	32 785	81 422	118 856	8 376
West Virginia	1	46	21	1 401	56 885	927	1 839	30 592	114 008	110 580	208 304	4 551

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
333131, Mining machinery and equipment manufacturing	
Companies ¹	number.. 246
All establishments ²	number.. 272
Establishments with 1 to 19 employees	number.. 163
Establishments with 20 to 99 employees	number.. 81
Establishments with 100 employees or more	number.. 28
All employees ³	number.. 9 895
Total compensation	\$1,000.. 532 009
Annual payroll	\$1,000.. 412 035
Total fringe benefits	\$1,000.. 119 974
Production workers, average for year	number.. 6 148
Production workers on March 12	number.. 6 385
Production workers on May 12	number.. 6 349
Production workers on August 12	number.. 5 942
Production workers on November 12	number.. 5 912
Production worker hours	1,000.. 11 980
Production worker wages	\$1,000.. 209 925
Total cost of materials	\$1,000.. 1 031 098
Materials, parts, containers, packaging, etc., used	\$1,000.. 784 641
Resales	\$1,000.. 202 762
Purchased fuels	\$1,000.. 4 278
Purchased electricity	\$1,000.. 11 271
Contract work	\$1,000.. 28 146
Quantity of electricity purchased for heat and power	1,000 kWh.. 193 334
Quantity of electricity generated less sold for heat and power	1,000 kWh.. -
Total value of shipments	\$1,000.. 1 926 204
Primary products value of shipments	\$1,000.. 1 479 816
Secondary products value of shipments	\$1,000.. 89 966
Total miscellaneous receipts	\$1,000.. 356 422
Value of resales	\$1,000.. 312 165
Contract receipts	\$1,000.. 5 338
Other miscellaneous receipts	\$1,000.. 38 919
Primary products specialization ratio	percent.. 94
Value of primary products shipments made in all industries	\$1,000.. 1 954 957
Value of primary products shipments made in this industry	\$1,000.. 1 479 816
Value of primary products shipments made in other industries	\$1,000.. 475 141
Coverage ratio	percent.. 76
Value added	\$1,000.. 883 728
Total inventories, beginning of year	\$1,000.. 450 324
Finished goods inventories	\$1,000.. 260 296
Work-in-process inventories	\$1,000.. 101 178
Materials and supplies inventories	\$1,000.. 88 850
Total inventories, end of year	\$1,000.. 430 072
Finished goods inventories	\$1,000.. 261 687
Work-in-process inventories	\$1,000.. 88 409
Materials and supplies inventories	\$1,000.. 79 976
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. '838 814
Total capital expenditures (new and used)	\$1,000.. '47 091
Buildings and other structures (new and used)	\$1,000.. '3 586
Machinery and equipment (new and used)	\$1,000.. '43 505
Automobiles, trucks, etc., for highway use	\$1,000.. '5 369
Computers and peripheral data processing equipment	\$1,000.. '4 156
All other expenditures for machinery and equipment	\$1,000.. '33 980
Total retirements	\$1,000.. '37 333
Gross value of depreciable assets at end of year	\$1,000.. '848 572
Depreciation charges during year	\$1,000.. '62 889
Total rental payments	\$1,000.. 21 134
Buildings and other structures	\$1,000.. 9 700
Machinery and equipment	\$1,000.. 11 434
Total other expenses ⁴	\$1,000.. 90 205
Response coverage ratio ⁵	percent.. 84
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 7 185
Communications services ⁴	\$1,000.. 4 605
Legal services ⁴	\$1,000.. 2 057
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 1 009
Advertising and promotional services ⁴	\$1,000.. 3 333
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 2 041
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 1 260
Management consulting and administrative services ⁴	\$1,000.. 8 593
Taxes and license fees ⁴	\$1,000.. 2 292
All other expenses ⁴	\$1,000.. 57 829

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
333131, Mining machinery and equipment manufacturing											
All establishments	1	272	9 895	412 035	6 148	11 980	209 925	883 728	1 031 098	1 926 204	'47 091
Establishments with—											
1 to 4 employees	9	79	169	6 323	111	197	3 128	11 346	12 976	24 438	'481
5 to 9 employees	7	41	279	11 639	174	353	5 995	22 806	24 664	47 562	'1 151
10 to 19 employees	4	43	579	21 960	374	706	11 623	41 380	36 565	77 609	'1 456
20 to 49 employees	1	50	1 622	65 371	1 003	1 982	31 645	144 218	137 263	274 943	'5 625
50 to 99 employees	2	31	2 040	79 623	1 306	2 688	41 827	169 386	205 586	391 593	'9 860
100 to 249 employees	—	25	h	D	D	D	D	D	D	D	D
250 to 499 employees	—	2	f	D	D	D	D	D	D	D	D
500 to 999 employees	—	1	f	D	D	D	D	D	D	D	D
1,000 to 2,499 employees	—	—	—	—	—	—	—	—	—	—	—
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	105	381	15 255	245	475	7 458	26 611	33 621	60 232	'1 190

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
333131	Mining machinery and equipment manufacturing	272	9 895	412 035	6 148	11 980	209 925	883 728	1 031 098	1 926 204	'47 091
3331311	Underground mining machinery (except parts sold separately)	38	3 120	133 887	1 915	3 748	68 412	242 704	476 077	727 937	'13 185
3331313	Mineral processing and beneficiation machinery (except parts sold separately)	1	b	D	D	D	D	D	D	D	D
3331315	Crushing, pulverizing, and screening machinery (except parts sold separately and portable crushing, screening, washing and combination plants)	17	1 646	72 876	969	1 911	35 043	138 853	156 239	297 412	'5 639
3331317	Drills and other mining machinery (except parts sold separately)	5	f	D	D	D	D	D	D	D	D
3331319	Parts and attachments for mining machinery and equipment (sold separately)	57	2 928	117 297	1 792	3 519	59 976	336 467	216 228	551 529	'20 628

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
333131	Mining machinery and equipment manufacturing	2002.. N 1997.. N	X X	X X	1 954 957 2 974 042
3331311	Underground mining machinery (except parts sold separately)	2002.. N 1997.. N	X X	X X	476 036 680 836
33313111	Underground mining machinery (except parts sold separately)	2002.. N 1997.. N	X X	X X	476 036 680 836
3331311100	Underground mining machinery (except parts sold separately) ¹	2002.. 29 1997.. 40	X X	X X	476 036 680 836
3331313	Mineral processing and beneficiation machinery (except parts sold separately)	2002.. N 1997.. N	X X	X X	D 633 663
33313131	Mineral processing and beneficiation machinery (except parts sold separately)	2002.. N 1997.. N	X X	X X	D 633 663
3331313100	Mineral processing and beneficiation machinery (except parts sold separately)	2002.. 4 1997.. 14	X X	X X	D 633 663
3331315	Crushing, pulverizing, and screening machinery (except parts sold separately and portable crushing, screening, washing and combination plants)	2002.. N 1997.. N	X X	X X	258 445 482 132
33313151	Crushing, pulverizing, and screening machinery (except parts sold separately and portable crushing, screening, washing and combination plants)	2002.. N 1997.. N	X X	X X	258 445 482 132
3331315100	Crushing, pulverizing, and screening machinery (except parts sold separately and portable crushing, screening, washing and combination plants) ¹	2002.. 31 1997.. 37	X X	X X	258 445 482 132
3331317	Drills and other mining machinery (except parts sold separately)	2002.. N 1997.. N	X X	X X	D 263 008
33313171	Drills and other mining machinery (except parts sold separately)	2002.. N 1997.. N	X X	X X	D 263 008
3331317100	Drills and other mining machinery (except parts sold separately) ¹	2002.. 17 1997.. 23	X X	X X	D 263 008
3331319	Parts and attachments for mining machinery and equipment (sold separately)	2002.. N 1997.. N	X X	X X	619 835 777 472
33313191	Mining and rock drill bits	2002.. N 1997.. N	X X	X X	290 057 322 366
3331319101	Percussion rock mining drill bits, with working part of sintered metal carbide and cermets, and base metal parts thereof	2002.. 12 1997.. 10	X X	X X	D 40 412
3331319106	Rock mining drill bits other than percussion, with working part of sintered metal carbide and cermets, and base metal parts thereof	2002.. 9 1997.. 15	X X	X X	171 198 239 764
3331319111	Other mining drill bits with working part of sintered metal carbide and cermets, and base metal thereof	2002.. 4 1997.. 11	X X	X X	D 42 190
33313192	Drill bits not having a working part of sintered metal carbide and cermets, and base metal parts thereof	2002.. N 1997.. N	X X	X X	D 8 758
3331319216	Drill bits not having a working part of sintered metal carbide and cermets, and base metal parts thereof	2002.. 6 1997.. 4	X X	X X	D 8 758
33313193	Parts and attachments for mining machinery and equipment (except drill bits) for underground mining vehicles	2002.. N 1997.. N	X X	X X	77 104 68 058
3331319321	Parts and attachments for mining machinery and equipment (except drill bits) for underground mining vehicles	2002.. 20 1997.. 31	X X	X X	77 104 68 058
33313194	Parts and attachments for mining machinery and equipment (except drill bits) for minerals crushing, grinding, sorting, separating, or washing machines (except portable)	2002.. N 1997.. N	X X	X X	86 148 166 088
3331319426	Parts and attachments for mining machinery and equipment (except drill bits) for minerals crushing, grinding, sorting, separating, or washing machines (except portable)	2002.. 22 1997.. 27	X X	X X	86 148 166 088
33313195	Parts and attachments for mining machinery and equipment (except drill bits) for lifting, handling, loading, or unloading machinery for underground mines	2002.. N 1997.. N	X X	X X	2 848 22 521
3331319531	Parts and attachments for mining machinery and equipment (except drill bits) for lifting, handling, loading, or unloading machinery for underground mines	2002.. 6 1997.. 6	X X	X X	2 848 22 521
33313196	Parts and attachments for mining machinery and equipment (except drill bits) for boring and sinking machinery other than coal or rock cutters and tunneling machinery	2002.. N 1997.. N	X X	X X	9 512 7 260
3331319636	Parts and attachments for mining machinery and equipment (except drill bits) for boring and sinking machinery other than coal or rock cutters and tunneling machinery	2002.. 4 1997.. 5	X X	X X	9 512 7 260
33313197	Parts and attachments for other mining machinery and equipment (except drill bits)	2002.. N 1997.. N	X X	X X	102 669 130 634
3331319744	Parts and attachments for other mining machinery and equipment (except drill bits)	2002.. 27 1997.. 37	X X	X X	102 669 130 634

See footnotes at end of table.

Table 6a. **Products Statistics: 2002 and 1997—Con.**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
333131	Mining machinery and equipment manufacturing—Con.				
3331319	Parts and attachments for mining machinery and equipment (sold separately)—Con.				
3331319Y	Parts and attachments for mining machinery and equipment (sold separately), nsk	2002.. N	X	X	20 876
		1997.. N	X	X	51 787
3331319YWV	Parts and attachments for mining machinery and equipment (sold separately), nsk	2002.. N	X	X	20 876
		1997.. N	X	X	51 787
333131W	Mining machinery and equipment manufacturing, nsk, total	2002.. N	X	X	167 002
		1997.. N	X	X	136 931
333131WY	Mining machinery and equipment manufacturing, nsk, total	2002.. N	X	X	167 002
		1997.. N	X	X	136 931
333131WYWW	Mining machinery and equipment manufacturing, nsk, for nonadministrative-record establishments	2002.. N	X	X	112 707
		1997.. N	X	X	76 356
333131WYWY	Mining machinery and equipment manufacturing, nsk, for administrative-record establishments	2002.. N	X	X	54 295
		1997.. N	X	X	60 575

¹For additional detail, see Current Industrial Report MA333F, Mining Machinery.

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p—10 to 19 percent estimated; q—20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. Product Class Shipments for Selected States: 2002 and 1997

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3331311	Underground mining machinery (except parts sold separately)	
	United States..... 2002..	476 036
	..... 1997..	680 836
	West Virginia..... 2002..	65 063
	..... 1997..	53 813
3331313	Mineral processing and beneficiation machinery (except parts sold separately)	
	United States..... 2002..	D
	..... 1997..	633 663
3331315	Crushing, pulverizing, and screening machinery (except parts sold separately and portable crushing, screening, washing and combination plants)	
	United States..... 2002..	258 445
	..... 1997..	482 132
	West Virginia..... 2002..	22 469
	..... 1997..	N
3331317	Drills and other mining machinery (except parts sold separately)	
	United States..... 2002..	D
	..... 1997..	263 008
	Pennsylvania..... 2002..	5 731
	..... 1997..	N
3331319	Parts and attachments for mining machinery and equipment (sold separately)	
	United States..... 2002..	619 835
	..... 1997..	777 472
	Indiana..... 2002..	14 194
	..... 1997..	7 071
	Michigan..... 2002..	15 457
	..... 1997..	25 751
	Ohio..... 2002..	61 215
	..... 1997..	81 342
	Pennsylvania..... 2002..	53 800
	..... 1997..	47 124
	Texas..... 2002..	56 762
	..... 1997..	65 256
	West Virginia..... 2002..	30 255
	..... 1997..	25 132

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
333131	Mining machinery and equipment manufacturing		
00900001	Total materials .....2002..	X	784 641
	.....1997..	X	1 137 710
33399601	Fluid power pumps, motors, and hydrostatic transmissions (hydraulic and pneumatic) .....2002..	X	4 757
	.....1997..	X	15 605
33399501	Fluid power cylinders and rotary actuators (hydraulic and pneumatic) .....2002..	X	7 744
	.....1997..	X	43 889
33291203	Fluid power hose and tube fittings and assemblies (hydraulic and pneumatic) .....2002..	X	4 877
	.....1997..	X	5 272
33291207	Fluid power valves (hydraulic and pneumatic) .....2002..	X	4 822
	.....1997..	X	18 028
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products .....2002..	X	8 333
	.....1997..	X	16 374
33200099	Fabricated structural metal products (excluding forgings) .....2002..	X	26 518
	.....1997..	X	109 488
33200065	All other fabricated metal products (excluding forgings, castings, metal stampings, bolts, nuts, washers, rivets, screw machine products, and structural metal products) .....2002..	X	16 087
	.....1997..	X	15 426
332000AC	Metal stampings .....2002..	X	10 247
	.....1997..	X	844
33210000	Forgings .....2002..	X	31 952
	.....1997..	X	N
33151001	Iron and steel castings (rough and semifinished) .....2002..	X	24 634
	.....1997..	X	109 237
33152011	Nonferrous (aluminum, copper, etc.) castings (rough and semifinished) .....2002..	X	2 032
	.....1997..	X	D
33120007	Steel bars, bar shapes, and plate (excluding castings, forgings, and fabricated metal products) .....2002..	X	40 280
	.....1997..	X	93 798
33120016	Steel sheet and strip (including tinplate) .....2002..	X	D
	.....1997..	X	N
33120019	Steel structural shapes and sheet piling (excluding castings, forgings, and fabricated metal products) .....2002..	X	D
	.....1997..	X	22 808
33120091	All other steel shapes and forms (excluding castings, forgings, fabricated metal products, bars, bar shapes, plate, sheet, strip, structural shapes, and sheet piling) .....2002..	X	11 024
	.....1997..	X	D
331000AJ	Nonferrous metal shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	5 995
	.....1997..	X	1 133
33361803	Diesel engines and parts specially designed for diesel engines .....2002..	X	7 862
	.....1997..	X	N
33631200	Gasoline engines and parts specially designed for gasoline engines .....2002..	X	D
	.....1997..	X	N
33531201	Electric motors and generators .....2002..	X	27 709
	.....1997..	X	59 084
33299105	Ball bearings (mounted or unmounted) .....2002..	X	4 596
	.....1997..	X	5 879
33299103	Roller bearings (mounted or unmounted) .....2002..	X	7 736
	.....1997..	X	17 997
33361200	Mechanical speed changers, gears, and industrial high-speed drives .....2002..	X	28 892
	.....1997..	X	46 969
32621003	Pneumatic tires and inner tubes .....2002..	X	4 148
	.....1997..	X	N
33639909	Wheels, motor vehicle .....2002..	X	449
	.....1997..	X	N
33600001	Purchased chassis for vehicles (excluding passenger cars) .....2002..	X	5 855
	.....1997..	X	N
33635003	Transmissions and parts .....2002..	X	9 034
	.....1997..	X	N
33632200	Engine electrical equipment (including spark plugs, magnetos, generators, starters, etc.) .....2002..	X	1 141
	.....1997..	X	N
33633000	Shocks, struts, and other suspension equipment and parts .....2002..	X	1 488
	.....1997..	X	N
32622001	Rubber and plastics hose and belting .....2002..	X	5 008
	.....1997..	X	6 598
32610007	Fabricated plastics products (excluding gaskets, hoses, and belting) .....2002..	X	4 375
	.....1997..	X	10 101
32551002	Paints, varnishes, stains, lacquers, shellacs, japans, enamels, and allied product .....2002..	X	3 142
	.....1997..	X	N
001900B1	Electrical transmission, distribution, and control equipment .....2002..	X	32 317
	.....1997..	X	18 796
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	195 256
	.....1997..	X	316 616
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	212 430
	.....1997..	X	172 079

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.